

**IN THE SPECIFICATION:**

**Please insert the following on Page 1, above line 1, (below the title):**

**--BACKGROUND OF THE INVENTION**

**1. Field of the Invention--;**

**Please insert the following on Page 5, between lines 7 and 8:**

**--2. Discussion of the Prior Art--;**

**Please revise the paragraph beginning on Page 5, line 8 to Page 5, line 11 to read as follows:**

--In certain types of prostheses, the polyethylene insert is fixed relative to the tibia. In this case, the tangential rolling/sliding movements, the shearing movement and all the movements of rotation take place in the contact zone between the femoral condyles and the tibial glenoid cavities. When these contacts are over a small surface area, high pressure can be reached in the polyethylene. Their designers generally recommend a pressure of less than or equal to 10 Mpa in the polyethylene zones where bearing is constant, that is to say in the zones near the walking position. An ideal pressure of 4 Mpa is desirable. However, in the prostheses with a low congruence (linear or punctiform articular surfaces between femur and polyethylene insert), pressure of over 30 Mpa are currently measured, and can even reach 50

Mpa. This leads to rapid degradation of the polyethylene, possibly necessitating further surgery to change the prosthetic implants. A contact surface of greater than 400 [m<sup>2</sup>] mm<sup>2</sup> is recommended. The state of the art, in the field of prosthetic joints, has led to the manufacture of prostheses in which the polyethylene inserts are congruent in relation to the femoral surface, a corollary of this congruence being that the insert must be movable in rotation relative to the tibial seat. These implants are referred to as prostheses having a movable plateau. In such cases, the articular congruence can be respected, making it possible to obtain a high degree of surface contact. With this type of prosthesis, pressures of the order of 4 to 8 Mpa are currently obtained in the polyethylene, which promotes the useful life of the latter.--

**Please revise the paragraph beginning on Page 6, line 26 to Page 7, line 2 as follows:**

--To ~~rectify~~ obviate this, the various surfaces must be tangential in relations to one another in the two spatial planes (sagittal and frontal) in order to permit sliding movements without sudden stops and without angular contacts in these three directions.--

**Please insert the following on Page 11, between lines 12 and 13:**

--SUMMARY OF THE INVENTION--;

**Please revise the paragraph beginning on Page 19, line 3 to read as follows:**

--The surfaces of the femoral component and of the insert arranged opposite each other are substantially complementary, except for play clearance or laxity intended to permit the movements:

- in a frontal plane: movement called lift-off, that is to say sliding lift and angulation of a condyle and angulation, with a contact remaining congruent between the femoral component and the insert both in the lateral cavity of the insert and on all or part of the central dome, irrespective of the angle of flexion;

- in a sagittal plane: a movement of flexion with preferably a ~~true rolling/sliding of the femur~~ natural roll/glide of the femoral component on the insert, that is to say a displacement of the point of contact of the femur on the insert from a few millimeters in front of the center of the insert, in position of extension 0, to a few millimeters behind the center of the insert, in the flexed position, but without displacement of the femoral component itself, or of the bone segment which carries it, relative to the tibial component (absence of translation);

- in a horizontal plane: rotation relative to a vertical axis, of which the amplitude varies depending on whether the insert is movable in rotation or not relative to the tibial component; according to the invention, the insert is preferably free on axial rotation.--

**Please insert the following on Page 22, between lines 16 and 17:**

**--BRIEF DESCRIPTION OF THE DRAWINGS--**

**Please insert the following on Page 23, between lines 1 and 2:**

**--DETAILED DESCRIPTION OF THE INVENTION--**

**Please revise the paragraph beginning on Page 26, line 15 to read as follows:**

--As has been indicated above, the curves Spi F and Spi T have a spiral form, without ~~certain~~ implying a precise mathematical definition. Likewise, in cross section in a frontal plane, the contact surface S1 of the femoral component 1 and the contact surface S2 of the insert (see Figure 3) have a sinusoidal profile, without this term implying a precise mathematical equation, and the different portions of the two curves comprise different portions of the two curves comprise different radii of curvature, such as R1, R2, R3, R'1, R'2, R'3 and connect tangentially to each other.--

**Please revise the paragraph beginning on Page 26, line 26 to Page 27, line 5 to read as follows:**

--It will be noted that the hollowed central part 40 12 of the femoral component 1 connects to the lateral parts 7 of this component 1 via a radius of curvature  $R_2$  which is constant from front to rear. Likewise, the convex central part 9 of the insert 3 directed toward the femoral component 1 connects to the hollowed lateral parts 8 of this insert via a radius of curvature  $R'_2$  which is constant from front to rear.--